

Classify each of the following substances as an element (E), compound (C), or mixture (M)

1. Iron-**element**
2. vegetable soup-**mixture**
3. sulfur-**element**
4. sugar-**compound**
5. air-**mixture**
6. coffee-**mixture**
7. granite-**mixture**
8. muddy water-**mixture**
9. concrete-**mixture**
10. silver oxide-**compound**

Classify the following changes as physical (P) or chemical (C)?

11. decaying fruit-**chemical**
12. breaking glass-**physical**
13. silver tarnishing-**chemical**
14. coal burning-**chemical**
15. hot water cooling-**physical**

Multiple Choice: Place the best answer for the following questions on the answer sheet provided.

16. The type of chemistry that studies the element carbon and related compounds is called  
A. Biochemistry    B. inorganic chemistry    **C. organic chemistry**    D. physical chemistry
17. Two solutions are mixed together. An insoluble solid settles to the bottom of the test tube. This solid is called a  
A. Catalyst    **B. precipitate**    C. reactant    D. sample
18. A property of a material determined by its reaction with nitric acid is called a  
A. Physical property    **B. chemical property**    C. nuclear property    D. none of these
19. Any substance that cannot be further broken down by ordinary chemical methods is called a  
A. mixture    B. compound    **C. element**    D. alloy
20. The type of chemistry that studies all other elements except carbon is called  
A. Biochemistry    **B. inorganic chemistry**    C. organic chemistry    D. geochemistry

21. The type of chemistry that studies the earth processes is called  
A. Biochemistry B. inorganic chemistry C. organic chemistry **D. geochemistry**
22. The type of matter that can be physically taken apart is a (n)  
A. element B. compound **C. mixture** D. plasma
23. The type of chemistry that studies biological processes is called  
**A. Biochemistry** B. inorganic chemistry C. organic chemistry D. geochemistry
24. The columns on the Periodic Table are called  
A. triads **B. groups** C. periods D. sets
25. Elements in columns will have  
**A. similar chemical properties**  
B. similar electron configurations in the outermost energy shells  
C. Both A and B  
D. neither A nor B
26. The rows on the Periodic Table are called  
A. triads B. groups **C. periods** D. sets
27. Elements found on the left side of the Periodic Table are called  
A. metalloids B. nonmetals **C. metals** D. halides
28. Elements found on the right side of the Periodic Table are called  
A. metalloids **B. nonmetals** C. metals D. halides
29. Those elements such as B, Si, and As that have both metallic and nonmetallic properties are called  
**A. metalloids** B. nonmetals C. metals D. halides

List the following :( on your answer sheet)

30. List three (3) items that are evidence of chemical change.
- The production of a precipitate (a solid compound is very slightly soluble in water that ends up at the bottom of the test tube)
  - The release of heat (exothermic)
  - The release of light
  - The release of a gas
  - Change in color
  - The production of electricity

31. List three (3) things that will promote chemical change.
- Addition of a catalyst (a substance that makes the chemical reaction work)
  - Exposure of the reactants to light (photography)
  - Heating the reactants
  - Passing electricity through the reactants
  - Putting the reactants into water solution
  - Stirring/agitating the reactants
32. List three (3) characteristics of an element that is a metal.
33. List three (3) characteristics of an element that is a nonmetal.

